CLAIMS:

1. A thermal interface wafer for facilitating heat transfer from an electronic component to a heat sink when interposed therebetween, said wafer comprising at least one planar substrate having first and second surfaces with edges, said substrate having at least one layer of conformable, heat-conductive material formed upon a respective surface thereof, said heat-conductive material being formulated to enhance the heat transfer from said electronic component to said heat sink, wherein the wafer is disposed to assume a substantially perpendicular orientation relative to the electronic component whereby the edges of the wafer contact the electronic component and the heat sink.

2. The thermal interface wafer of Claim 1 wherein said planar substrate comprises a metallic layer.

3. The thermal interface wafer of Claim 2 wherein said metallic layer is selected from the group consisting of copper, gold, silver and aluminum.

4. The thermal interface wafer of Claim 1 wherein said planar substrate has a width no greater than about 0.2 inches.

5. The thermal interface wafer of Claim 1 when said planar substrate has a width no greater than about 0.01 inches.

6. The thermal interface wafer of Claim 1 wherein said planar substrate has a width from about 0.005 to 0.01 inches.

7. The thermal interface wafer of Claim 1 wherein said substrate with conformable, heat-conducting material is formed as a coil.

8. The thermal interface wafer of Claim 1 wherein said substrate with material is formed to have a generally serpentine configuration.

9. The thermal interface wafer of Claim 1 wherein said wafer is comprised of a multiplicity of perpendicularly oriented planar substrates, each respective one of said substrates having said conformable, heat-conducting material formed upon a respective side thereof.

10. The thermal interface wafer of Claim 9 wherein said wafer is comprised from a multiplicity of planar substrates with dedicated layers of conformable, heat-conducting material formed thereon.

11. The thermal interface wafer of Claim 9 wherein said substrates with heat-conductive material formed thereon are arranged and generally parallel in relation to one another and compressibly bonded to one another.

12. The thermal interface wafer of Claim 1 wherein said layer of conformable, heat-conductive material is formulated to have a melting point of about 51° or higher.

13. A thermal interface for facilitating heat transfer from an electronic component to a heat sink comprising at least one elongate planar strip substrate having first and second sides with at least one layer of conformable, heat-conducting material formed upon a respective one of said sides, said at least one strip with at least one layer of heat-conducting material formed thereon being formed as a cross-sectional portion of an outwardly-spiraling coil to define a wafer interposable between said electronic component and said heat sink.

14. The thermal interface of Claim 13 wherein said substrate comprises a metal foil selected from the group consisting of copper, gold, silver and aluminum.

15. The thermal interface of Claim 13 wherein said wafer formed by said coiled elongate strip substrate assumes a generally circular configuration.

16. The thermal interface of Claim 13 wherein said wafer formed by said coiled elongate strip substrate assumes a generally rectangular configuration.

17. The thermal interface of Claim 13 wherein said wafer formed by said coiled elongate strip substrate assumes a generally square-shaped configuration.

18. The thermal interface of Claim 13 wherein said elongate strip substrate with heat-conductive material formed thereon assumes a generally serpentine configuration to define said wafer.

19. A thermal interface for facilitating heat transfer from an electronic component to a heat sink comprising a multiplicity of elongate, planar substrates, each respective substrate having at least one layer of conformable, heat-conducting material formed thereon, said multiplicity of elongate strips being formed in generally parallel relation to one another to define a wafer interposable between said electronic component and said heat sink.

20. The thermal interface of Claim 19 wherein said substrates are comprised of a metal foil selected from the group consisting of copper, gold, silver and aluminum.

21. A method for facilitating the transfer of heat from an electronic component to a heat sink across an interface therebetween, the method comprising the steps:

a) providing a thermal interface interposable between said electronic component and said heat sink, said wafer comprising at least one planar substrate having first and second surfaces, said substrate having at least one layer of conformable, heat-conductive material formed upon a respective surface thereof, said heat-conductive material being formulated to enhance the heat transfer from said electronic component to said heat sink;

b) interposing the thermal interface wafer of step a) between said electronic component and said heat sink such that the planar substrate of such wafer assumes a substantially perpendicular orientation relative said electronic component and said heat sink; and

c) compressively engaging said electronic component to said heat sink with said thermal interface disposed therebetween.

22. The method for facilitating the transfer of heat of Claim 21 wherein in step (a), said substrate comprises a thermally conductive metal foil.

23. The method of Claim 22 wherein said foil is formed from the group consisting of copper, gold, silver and aluminum.

24. The method of Claim 21 wherein said layer of conformable, heat-conducting material is formulated to have a melting point of approximately 51°C or higher.

25. A method for fabricating a thermal interface for facilitating heat transfer from an electronic component to a heat sink, the method comprising the steps:

a) providing a planar, thermally-conductive sheet having first and second sides;

b) forming a layer of conformable, heat-conductive material upon at least one of said sides of said sheet provided in step (a);

c) rolling the sheet with heat-conducting material formed thereon in step (b);

d) slicing cross-sectional cuts through the rolled sheet with heat-conductive material formed thereon in step (c).

26. The method of Claim 25 wherein in step (c), said sheet with heat-conductive material formed thereon is rolled such that the sheet assume a cylindrical configuration.

27. The method of Claim 25 wherein in step (a), said substrate comprises a metal foil.

28. The method of Claim 27 wherein said metal foil is selected from the group consisting of copper, gold, silver and aluminum.

29. The method of Claim 25 wherein in step (d), said rolled sheet with heat-conducting material are sliced such that the cross-sectional cuts produced thereby have a thickness of 0.2 inches or less.

30. The method of Claim 29 wherein in said sliced are made such that the resultant thermal interface has a thickness of less than 0.01 inches.

31. The method of Claim 30 wherein in said role is sliced such that the thermal interface produced thereby has a thickness between 0.005 and 0.01 inches.

32. The method of Claim 25 further comprising the step:

a) applying a flatwise pressure to the sliced cross sectional cuts of step (d).

33. The thermal interface of Claim 13 wherein said interface has a thickness no greater than about 0.2 inches.

34. The thermal interface of Claim 13 wherein said interface has a thickness no greater than about 0.01 inches.

35. The thermal interface of Claim 13 wherein said interface has a thickness from about 0.005 to 0.001 inches.

36. The thermal interface of Claim 1 wherein said layer of conformable, heat-conducting material is formulated to have a melting point of approximately 51°C or higher.